

LISTING OF CLAIMS:

Claim1 (Previously amended): Pyrogenically produced oxides of metals or metalloids which oxides are doped by means of aerosol with potassium, characterized in that the base component is an oxide that is pyrogenically produced by flame oxidation or flame hydrolysis and was doped with potassium from 0.000001 to 20 % by wt. and the doping component is a salt of potassium, the BET surface of the doped oxide is between 1 and 1000 m²/g and the breadth of the distribution of particle size is at least 0.7.

Claim 2 (Previously amended): The pyrogenically produced oxides of metals or metalloids in accordance with claim 1, further characterized in that the pH of the doped, pyrogenic oxide is more than 5, measured in a 4 % aqueous dispersion.

Claim 3 (Previously amended): The pyrogenically produced oxides of metals or metalloids in accordance with claim 1, further characterized in the doping amount is in a range of 1 to 20,000 ppm and the absorption of dibutylphthalate does not allow any end point to be recognized.

Claim 4 (Previously amended): A method of producing potassium-doped pyrogenic oxides comprising sequentially feeding a gaseous mixture, including a pyrogenic oxide precursor, and an aerosol to form an aerosol-gaseous mixture, which is fed into a flame under conditions suitable for producing pyrogenic oxides by flame oxidation or flame hydrolysis from the precursor, to form the potassium-doped pyrogenic oxides, and separating the formed pyrogenic-doped oxides, which have BET surface of the doped oxide is between 1 and 1000 m²/g and the breadth of the distribution of particle size is at least 0.7, from the reacted aerosol-gaseous mixture, wherein the aerosol is homogeneously mixed before the reaction with the gaseous mixture and is prepared from a potassium salt solution.

Claim 5 (Previously amended): A composition comprising doped pyrogenic oxides in accordance with claim 1 suitable for use as a polishing agent.

Claim 6 (Previously added): The method of claim 4 wherein the aerosol is produced by atomization by means of an aerosol generator.

Claim 7 (Previously added): The method of claim 6 wherein the atomization involves a gas-atomizing (two-fluid) nozzle method.

Claim 8 (Newly added): The pyrogenically produced oxides of metals or metalloids in accordance with claim 1, further characterized in the doped particles have a potassium content of more than about 0.03% by weight.

Claim 9 (Newly added): The method of claim 4 wherein the pyrogenic-doped oxide particles have a potassium content of more than about 0.03% by weight.

Claim 10 (Newly added): A method of producing potassium-doped pyrogenic oxides consisting essentially of sequentially feeding a gaseous mixture, including a pyrogenic oxide precursor, and an aerosol to form an aerosol-gaseous mixture, which is fed into a flame under conditions suitable for producing pyrogenic oxides by flame oxidation or flame hydrolysis from the precursor, to form the potassium-doped pyrogenic oxides, and separating the formed pyrogenic-doped oxides, which have BET surface of the doped oxide is between 1 and 1000 m^2/g and the breadth of the distribution of particle size is at least 0.7, from the reacted aerosol-gaseous mixture, wherein the aerosol is homogeneously mixed before the reaction with the gaseous mixture and is prepared from a potassium salt solution.